



Place: Online

## Meeting Notes

Date: December 1, 2020

Notes Taken by: H. Beato & P. Walker

Project #: 52636.00

Re: Keene-Swanzey Floodplain Mitigation (Part A) 40100  
Public Informational Meeting

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### ATTENDEES

Kirk Mudgett, NHDOT  
Marc Laurin, NHDOT  
Cheri Poire, NHDOT  
Pete Walker, VHB  
Dave Cloutier, VHB

Hannah Beato, VHB  
Elizabeth Dragon, City of Keene  
Rhett Lamb, City of Keene  
Tim Mallette  
J. B. Mack

Michael Remy  
Eloise Clark  
Amy Adams  
John Therriault

Kirk Mudgett, NH Department of Transportation (NHDOT), opened the meeting by welcoming the attendees and outlining the agenda for the meeting, including a discussion of the project background and history, a review of the project purpose and need, the study approach and project work scope, an update on the proposed action and alternatives evaluated, and an overview of the study schedule and process. The project is funded, with construction anticipated in March 2022. The project is currently in the preliminary design phase, which the consulting firm VHB has been contracted to complete.

Pete Walker (VHB) explained that the project is being conducted pursuant to the National Environmental Policy Act (NEPA). This is the second public informational meeting to be held as part of the public involvement process. The purpose of this meeting is to present the project information to the public and to seek public input. Also, as part of the public involvement process, NHDOT formed a Technical Advisory Group (TAG) to provide detailed reviews of project methods, process, and results. To date, several meetings have been held with the following TAG participants:

- Michael Branley, Town of Swanzey
- Amy Lamb, NH Natural Heritage Bureau
- Rhett Lamb, City of Keene
- Don Lussier, City of Keene Department of Public Works
- Barbara Skuly, Ashuelot River Local Advisory Committee
- Lori Sommer, NH Department of Environmental Services

Additional meetings held include the first public informational meeting, held on January 21, 2020, and two Natural Resource Agency Coordination meetings, held on December 18, 2019 and October 21, 2020. Both state and federal resource agencies participated in the Natural Resource Agency Coordination meetings.

The purpose of the project is to identify an appropriate floodplain mitigation site or sites, in consultation with the City of Keene and state and federal agencies, to provide 19.9 acre-feet of floodplain compensatory storage within the floodplain of the Ashuelot River and of its tributary, Ash Swamp Brook, for four interrelated construction contracts:

- Contract 10309A: Base Hill Road Intersections with NH 9 and NH 10 (Completed 2007)
- Contract 10309H: NH 10/Winchester Street Roundabout (Completed 2008)

- Contract 10309O: West Street Improvements (Completed 2008)
- Contract 10309P: Multi-use trail over NH 12/101 (Completed 2017)

Most of the impacts that this compensatory floodplain storage project will offset occurred under Contract 10309H, the NH 10/Winchester Street Roundabout. The project will compensate for the loss of flood storage by artificially lowering a hydraulically comparable area within the Ashuelot River and Ash Swamp Brook floodplain.

This project has since completed multiple steps over the last year, including:

- Development of an initial list of compensatory storage sites
- Development of preliminary estimates of compensatory storage
- Identification of reasonable alternatives
- Completion of site-specific studies of reasonable alternatives
- Identification of a preferred alternative

Site screening started at a landscape level using GIS data and other desktop resources to identify high priority floodplain mitigation sites in the City of Keene. To identify priority sites, VHB developed an analysis of "Floodplain Mitigation Focus Areas," which prioritized areas of the city that were undeveloped, lacked wetlands, and were in an appropriate geomorphic position relative to the impacted floodplain (i.e., within or directly adjacent to the mapped floodplains, elev. 466 ft and 478 ft).

Using city tax parcel data, VHB identified a total of 19 parcels that contained at least 5 acres of Floodplain Mitigation Focus Area. This list was further narrowed to 10 priority sites by selecting sites that were determined compatible with adjacent land uses, were located near the impact location, and limited environmental impacts such as tree clearing. Once the initial screening was completed, VHB used CAD and LiDAR topographic data to estimate the maximum potential compensation flood storage volume for potential mitigation sites. Each of the 10 sites were ranked according to the preliminary estimates of the compensatory storage available (refer to the public informational meeting presentation, slide 11):

- High Priority Sites (green, greater than 120% of target flood storage)
- Medium Priority Sites (yellow, between 80%-120% of target flood storage)
- Low Priority Sites (red, less than 80% of target flood storage)

Three of the 10 sites were ranked as low priority sites and were therefore eliminated from further study. In May 2020, VHB and NHDOT visited the set of seven remaining parcels in the field. As a result of this site visit, two parcels (Parcels 114-021 and 114-025, or the "Joslin Parcels") were eliminated from further consideration due to their location within an active low floodplain with a mature floodplain forest community.

A total of five sites remained. Two of the five sites included NHDOT Site 8 and NHDOT Site 9, which are parcels located within land owned by the State of New Hampshire that had been acquired years ago for transportation

purposes. The remaining three sites included the following privately-owned parcels: the Legere site (Parcel 111-007), and; the Krif sites (Parcels 115-010 and 115-013).

Once these five priority sites were selected, detailed field work was completed, including development of an existing conditions survey (property boundaries and topography), wetland delineations, cultural resource surveys, rare species surveys, updated compensatory storage volumes, and development of 30% design plans.

Pete Walker presented an aerial map overlaid with the wetlands present within and adjacent to the five priority sites. Most of the sites had wetlands along the perimeter of the sites; however, the Site 8 was found to be primarily wet meadow, resulting in its elimination. Site 9 is dominated by open field, with an inclusion of primary succession forest in the southwest portion of the site, populated by young gray birch, poplar, and other small trees, saplings and shrubs. The Legere (111-007) and Krif (115-010 and 115-013) sites are similar locations - all are currently farmed, and have an unnamed perennial tributary running through the parcels with wetlands present along their margins.

VHB completed conceptual designs for the remaining four alternatives (i.e., 30% design - preliminary grading plan). The surface elevation data for each of the four sites was mapped, along with proposed excavation depth (refer to the public informational meeting presentation, slides 15-17). The Legere (111-007) and Krif (115-010 and 115-013) sites were determined to be less practicable than Site 9 due to private ownership, the presence of an unnamed tributary and wetlands, and the results of the preliminary assessment of the compensatory storage did not provide the full 19.9 acre-feet required.

Site 9 was presented as the preferred alternative at the TAG meeting held on September 24, 2020. Comments received included concerns about aesthetics and habitat value, because the grading plan showed flat, uniform elevations, which would essentially look like a large, flat basin. In response, VHB developed a revised conceptual plan to test the idea of how to create a site with more heterogeneity, while still achieving the target of 19.9 acre-feet storage capacity. The revised conceptual plan incorporates a low channel that would develop as wetland habitat, floodplain riparian habitat, and some high areas. Pockets of the existing young forest may be retained to increase the aesthetics and habitat value. Pete Walker explained that the revised conceptual plan for Site 9 will include plantings as the design is refined.

For the following reasons, Site 9 was determined to be the preferred alternative:

- 6.2-acre undeveloped area within NHDOT right-of-way
- Avoids acquisition of private property, substantial wetland impacts, and historic properties
- Close to the Winchester Street Roundabout (Contract 10309H), the largest source of floodplain fill to be compensated
- Within the same hydraulic reach of the Ashuelot River and Ash Swamp Brook floodplain as Contract 10309H
- Topographic layout maximizes average depth of excavation
- Adjacent to NH 101, easy construction access

Next steps for the project include developing a NEPA Categorical Exclusion document. The environmental document will address resources including, but not limited to air quality, cultural resources, endangered species, floodplain/floodways, traffic, noise, and wetlands.

Wetlands were delineated by a NH Certified Wetland Scientist; based on the preferred alternative design, there will be very little wetland impacts (less than 500 square feet) to the channelized stream along the northern boundary of Site 9.

Cultural resource reviews included below-ground (archaeology) and above-ground resources; no sites were identified. A No Historic Properties Affected Memo will document these findings.

Regarding Federally threatened and endangered species, two species were found to be present in the general area that are protected under federal law, including the Northern long-eared bat. Habitat surveys have been conducted and consultation with the USFWS is ongoing. Although dwarf wedgemussel was noted as potentially being present, field work confirmed that there is no suitable habitat.

At the state level, there are no known protected wildlife species occurring on Site 9. There are some rare species that occur within the City of Keene in general, but it is anticipated that none of those species would be impacted by the project. Further coordination with the NH Fish and Game Department will occur regarding species of concern that have been identified in the vicinity.<sup>1</sup> The NH Natural Heritage Bureau (NHB) had concerns about potential impacts on two species of rare plants: Narrow-leaved hawkweed and Greater-fringed gentian. Site specific surveys ruled out the occurrence of these species on Site 9. Coordination with NHB to document these findings is ongoing.

Construction impacts will occur as a result of moving over 30,000 cubic yards of soil, which would generate between 1,000 to 2,000 truck loads of material. Construction access and traffic control is being considered and would be further refined during final design to mitigate impacts on traffic. Construction noise and dust would be mitigated using typical best management practices. Excavated soils would be moved off-site; potential off-site fill sites would be limited to non-floodplain areas. Stormwater would be managed to minimize erosion and sediment impacts.

Next steps planned for the project include finalization of an engineering report, completion of the NEPA Categorical Exclusion, and progression towards final design, permitting, and construction.

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<sup>1</sup> In an email dated December 21, 2020, Kim Tuttle of the NH Fish and Game Department initiated further discussion regarding the potential presence of suitable Wood turtle habitat in the vicinity of Site 9, which is located within the Ashuelot River watershed. NHDOT will continue to coordinate the final design of Site 9 with the NH Fish and Game Department, the NH Department of Environmental Services Wetlands Bureau, the Ashuelot River Local Advisory Committee, the NHB, the Town of Swanzey, and the City of Keene.

Following the prepared presentation, Pete Walker and Kirk Mudgett opened the meeting to questions.

*Question:* Site 9 appears to be disconnected from the Ashuelot River? Is this an issue?

*Response:* No, it is not an issue because Site 9 is located within the Ashuelot River watershed. Although not next to the river, Site 9 is in the shared active floodplain of Ash Swamp Brook and the Ashuelot River. The areas that were filled in by the four previous NHDOT projects and the priority sites considered are in the shared floodplain of Ash Swamp Brook and the Ashuelot River. The topography of the area is essentially a low, flat bathtub – when the water rises in any of these watercourses it fills out the entire area. Under lower flows, hydraulically the way that these locations are connected to the Ashuelot River is through a small channel that flows along the north side of Site 9, under Winchester Street, across the Legere (111-007) parcel, down through the Krif (115-010 and 115-013) parcels and makes its way south to join Ash Swamp Brook not far from the confluence of the Ashuelot River. Under higher flows (i.e., 1% annual chance of flooding), waters would be coming and leaving from every direction where the elevation is lower than the flood elevation of about 472 feet.

*Question:* Could Peter Walker please describe the hydraulic reach for Site 9. Where is the water likely to come from? Ash Swamp Brook?

*Response:* Answered by previous response.

*Question:* Would it be appropriate to establish a pollinator habitat in a portion of the riparian land at the site?

*Response:* The project is at a conceptual design level but the use of pollinator plant species will be considered in the development of a planting plan during the final design stage. Kirk Mudgett noted that the project budget would be a factor in the consideration of selected plant species as well.

*Question:* Is there a commitment to plant native plants (Joe-Pye weed, asters, etc.) that may take care of the pollinator question without breaking the budget? The commitment to native plants is very important when vegetating the area.

*Response:* All of our planting plans specify native plants. Depending on what is being planted, it can sometimes be difficult to source. There are not many plant nurseries in the northeast that can supply the quantities of plants or seed mix needed. The planting plan would specify native New England plants and seed mixes sourced locally. Amy Lamb, an ecologist with the NHB, offered to assist in development of the planting plan.

*Comment:* Native plants would be best. Many can be seeded without a major expense.

With no further comments or questions, the meeting was adjourned.